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| BASELL USA INC. NEWTOWN SQUARE CENTER 3801 WEST CHESTER PIKE, BLDG. B NEWTOWN SQUARE, PA 19703 | | | EXAMINER MCDONOUGH, JAMES E | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/537,079

Applicant(s)

DIEGO ET AL.

Examiner

JAMES E. MCDONOUGH

Art Unit

1793

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 4-6, 8-17 and 19-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4-6, 8-17 and 19-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB06)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Original Rejections

The 102 rejections, present in the last action dated 1/22/2008, were included by mistake as there were 103 rejections over all the claims. The 103 rejections have been maintained and are unchanged. The 102 rejections have been removed, as there inclusion was a typo.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 4-6, 8-13 and 19-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yang et al., USP 6,034,025.

Yang et al. teaches a method of producing a catalyst for the polymerization of olefins. Whereby, magnesium halide is contacted in solution with a mixture of a cyclic

ether and alcohols which can be further reacted with a titanium (group 4 metal) compound forming a solid precipitate (abstract), polymerization of α -olefins (ethylene and propylene) (column 2, lines 42-44), methanol and ethanol as the alcohols and THF (tetrahydrofuran) as the cyclic ether having from 0.5-20 equivalents of alcohol and 0.5-20 equivalents of Lewis base (THF) per mole of magnesium compound (column 3, lines 45-64), reacting with an organoaluminum compound (column 6, lines 7-22), and exemplifies Magnesium chloride ($MgCl_2$) (column 7, line 50).

Although, Yang et al. does not explicitly state that his Lewis adduct is solid, however, his composition appears identical to that of the instant application and if the composition of the instant application is solid then it would be obvious to someone of ordinary skill in the art that an identical composition from the reference would also be expected to be solid (again being in solution does not prevent a compound from being solid).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the parameters of the catalyst such as the ratio of alcohol/Lewis base relative to magnesium to achieve a desired result. It is well-settled that optimizing a result effective variable is well within the expected ability of a person of ordinary skill in the subject art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980), In re Aller, 220 F.2d 454, 105 USPQ 233 (CCPA 1955).

Claims 1, 4-6, 8-13 and 19-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iiskolan et al., USP 4,829,034.

liskolan et al. teaches solid catalyst components for the polymerization of α -olefins (abstract), a catalyst formed by contacting MgCl_2 with EtOH (alcohol), diisobutylphthalate (Lewis Base, alkyl ester of carboxylic acid), ratio of magnesium:alcohol:Lewis base equals 1:3:0.1, contacting with TiCl_4 and triethylaluminum (column 5, line 58 to column 6, line 39) the reference further teaches the alcohol can range from 1-6 equivalents per magnesium (column 10 lines 38-40) and gives examples of 1 Mg per 3.7 EtOH (column 8, line 8) and 1 Mg per 2.9 EtOH (column 8, line 62).

Although, liskolan does not explicitly teach using 2.5 ROH per Mg, liskolan does disclose a range that encompasses 2.5 ROH per Mg, it would have been obvious to someone of ordinary skill in the art at the time the invention was made to vary the ratio of reagent within the stated range of feasibility.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the parameters of the catalyst such as the ratio of alcohol/Lewis base relative to magnesium to achieve a desired result. It is well-settled that optimizing a result effective variable is well within the expected ability of a person of ordinary skill in the subject art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980), In re Aller, 220 F.2d 454, 105 USPQ 233 (CCPA 1955).

Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over liskolan in view of Yang, both as cited above.

The disclosure of liskolan has been discussed above.

liskolan lacks in its example 1 the use of a further solvent or the direct combination of the magnesium halide/alcohol adduct with a further Lewis base.

However, Yang at col. 4, 1. 22-30, teaches that the combination of the various ingredients that go to make up a magnesium chloride adduct support may conventionally occur in an inert hydrocarbon solvent., and since the alcohols of Yang and liskolan are already Lewis bases, the addition of a further Lewis base would have been conventional to the routineer in the art. It would have been obvious to one of ordinary skill in the art to apply the teaching of Yang to the disclosure of liskolan with a reasonable expectation of obtaining a highly-useful method of making a magnesium chloride adduct with the expected benefit of being able to obtain finer particle sizes by breaking up the product by stirring in solution as it is made.

Response to Arguments

Applicants argue against the 102 rejections.

The 102 rejections have been withdrawn, as they were included in the last office action by mistake.

Applicants argue against the reference of liskolan.

Applicants argue that liskolan uses diisobutylphthalate, wherein diisobutylphthalate is excluded. This is not persuasive because while liskolan does teach the use of diisobutylphthalate as a recommended and frequently used electron

donor. Iiskolan teaches that the electron donor can be "aliphatic or aromatic alkylesters of carboxylic acids" (column 3, lines 45-50).

Applicants argue unexpected results relative to the disclosure of Iiskolan. This is not persuasive because the results are not fully commensurate with the scope of the claimed invention.

Applicants remaining arguments have been fully considered, but are not persuasive, for the same reasons given in the final office actions mailed 3/13/2007 and 1/22/2008, and for the same reasons given in the advisory actions dated 9/27/2007 and 3/4/2009, as applicants have failed to amend the claims, and applicants have repeated the "exact" same arguments earlier presented.

Conclusion

This is a continuation of applicant's earlier Application No. 10/537,079. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES E. MCDONOUGH whose telephone number is (571)272-6398. The examiner can normally be reached on 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571)272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/

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Supervisory Patent Examiner, Art
Unit 1793

/James E McDonough/
Examiner, Art Unit 1793, 11/30/2009